IEOM Awards – 4th European Rome Conference
August 5, 2021, 5:00 – 7:00 pm, Rome Time

IEOM Distinguished Leadership Award
- Franco Megali, VP and CEO Italy, Israel and Greece, Siemens Digital Industries Software

IEOM Distinguished Educator Award
- Dr. Tomohiko Sakao, Professor of Sustainable Product/Service Systems, Linköping University, Sweden
- Dr. Dominik Matt, Professor of Production Systems Technologies Faculty of Science and Technology, Free University of Bozen-Bolzano, Italy. Director, Research Center Fraunhofer Italia in Bolzano
- Prof. Massimo Tronci, Sapienza - University of Rome

Distinguished Industry Achievement Award
- Dr. Di Paola Galloni Jean Luc, VALEO; EXTRAC Operational Vice-Chairman, France

Distinguished Professor Award
- Dr. Dariusz Jemielniak, Professor of Management, Kozminski University, and Faculty Associate, Berkman-Klein Center for Internet and Society, Harvard University. Wikimedia Foundation Trustee
- Prof. Christoph Glock, Full professor at Technische Universität Darmstadt and head of the Institute of Production and Supply Chain Management, Germany
- Prof. dr. ing. Cristian DOICIN, Dean, Faculty of Industrial Engineering and Robotics, Universitatea POLITEHNICA din București, Romania

Outstanding Professor Award
- Dr. Joseph Sarkis, Foisie Business School, Worcester Polytechnic Institute, Worcester, MA, USA
- Dr. Fatma H. Ashour, Director of the Center for Environmental Hazard Mitigation and Environmental Research and Studies, Cairo University, Egypt
- Dr. Saurin Tarcisio Abreu, Associate Professor, Industrial Engineering Department, Universidade Federal do Rio Grande do Sul, Rio, Brazil

Outstanding Professor in Supply Chain and Logistics Award
- Professor Jose Arturo Garza-Reyes, Ph.D., Professor of Operations Management, Head of the Centre for Supply Chain Improvement, College of Business, Law and Social Sciences, University of Derby, UK
- Dr. Tom Van Woensel, Full professor of Freight Transport & Logistics, Eindhoven University of Technology, Eindhoven, North Brabant, Netherlands

Outstanding Professor in Industry 4.0 Award
- Dr. Erwin Rauch, Assistant Professor in Manufacturing Technology and Systems, Head of the Smart Mini Factory laboratory for Industry 4.0 application, Free University of Bolzano, Italy
- Professor Ramón Barber Castaño, Director of the Master in Industrial Engineering, Universidad Carlos III de Madrid, Spain
- Prof. Dr Hab. Inż. Krzysztof Jan Kamiński, Head of the Department, Faculty of Mechanical Engineering, Gdańsk University of Technology, Poland

Outstanding Researcher Award
- Dr. Salvatore Miranda, Associate Professor Dept. of Industrial Engineering University of Salerno, Italy

IEOM Outstanding Academic Award
- Dr. Dobrica Milovanovic, Professor, Department of Energy and Process Engineering, University of Kragujevac, Serbia
- Prof. Ing. Peter Trebuňa, PhD., Director, Institute of Management, Industrial and Digital Engineering, Faculty of Mechanical Engineering, Technickej Univerzity v KošICIach, Košice, Slovakia
- Dr. Edin Jahic, Acting Dean of Faculty of Engineering and Natural Sciences, International University of Sarajevo, Ilidža, Bosnia & Herzegovina

Innovation and Entrepreneurship Award
IEOM Society Awards – 4th European Rome Conference, August 2-5, 2021

• Elena V. Gurina, Associate Professor, Head of the Department, Economy and Management of Research, Design and Production, Belarusian National Technical University, Belarus

IEOM Woman in Industry and Academia Award
• Prof. Mara Lombardi, Department of Chemical Engineering Materials Environment (DICMA), Faculty of Civil and Industrial Engineering, Sapienza-University of Rome, Rome, Italy
• Professor Grazia Speranza, Professor, Department of Quantitative Methods, University of Brescia, Italy

Diversity and Inclusion Award
• Dr. Sara Shafiee, Researcher/Assistant Professor, Department of Mechanical Engineering, Engineering Design and Product Development, Technical University of Denmark, Lyngby, Denmark

IEOM Global Education Award
• Iryna Shvets, Dr. Prof., Vice-Rector for International Relations, Donets National Technical University, Shybankova square 2, Pokrovsk, 85300 Ukraine
• Dr. Wim Van Petegem, Professor, KU Leuven, Leuven, Flemish, Belgium
• Denis Lemaitre, Training Laboratory and Professional Learning, ENSTA Brittany, Brest, France

IEOM Industry 4.0 Award
• FH-Prof. DI Dr. Erich Markl, Head of Faculty, Industrial Engineering, Fachhochschule Technikum Wien, Austria
• Jo Wessel Strandhagen, Department of Mechanical and Industrial Engineering, Norwegian University of Science and Technology, Trondheim, Norway

Industry Solutions Award
• Bruno Alves, Lead Manufacturing Engineer ADAS ECU, Aptiv, Braga, Portugal
• Prof. Dr. Markus Bambach, Dep. of Mechanical and Process Eng., ETH Zürich, Zürich, Switzerland

Teaching Excellence Award – IE & OM
• Dr. Susana Duarte, Assistant Professor, Universidade Nova de Lisboa, Lisbon, Portugal
• Prof. PhD Plamen Bratanov, Head of the Department of Industrial Design, Mechanical Engineering Faculty, Technical University of Varna, Varna, Bulgaria

OM Teaching Excellence Award
• Dr. ARCHETTI Claudia, Associate Professor, Department of Information Systems, Decision Sciences and Statistics, ESSEC Business School, Paris, France
• Dr. Tamás Koltai, professor of production and operations management at the Department of Management and Business Economics, Budapest University of Technology and Economics, Magyar tudósok körútja 2, H-1117 Budapest
• Prof. Dr. Sabine Baumann, Professor of Management and Business Administration, Jade University of Applied Sciences, Wilhelmshaven, Germany

IEOM Distinguished Service Award
• Dr. Mario Fargnoli, Technical Director, Italian Ministry of Agriculture and University of Rome “La Sapienza” and Contact Professor at Sapienza-University of Rome (Chairman of the Committee)
• Prof. Francesco Costantino, Sapienza - University of Rome
• Prof. Giulio Di Gravio, Sapienza - University of Rome
• Prof. Dr. Riccardo Patriarca, Associate Professor, University of Bozen-Bolzano
• Dr. Matteo Mario Savino, University of Sannio

IEOM Outstanding Service Award
• Dr. Ahm Shamsuzzoha, Tenure Track Professor, School of Technology and Innovations, Digital Economy Platform, University of Vaasa, Finland

IEOM Society Awards
• Dr. Maria Grazia Gnoni, Associate Professor, Department of Innovation Engineering, Università del Salento, Lecce, Italy
• Professor Linda Zhang, Full Professor of Operations Management, Department of Management, IESEG School of Management, Paris, France
• Dr. Zied Hajej, Laboratory of Industrial Engineering, Production and Maintenance LGiPM, Université de Lorraine, Metz, France
• Dr. Leonardo Frizziero, Associate Professor, DIN - Department of Industrial Engineering, ALMA MATER STUDIORUM University of Bologna, Bologna – Italy
• Dr. Jiri Tupa, Associate Professor, Department of Technologies & Measurement, Vice Dean for Faculty Development, Faculty of Electrical Engineering, University of West Bohemia in Pilsen, Pizen-City, Czech Republic
• Dr. M. Affan Badar, PhD, CPEM, Professor and Former Chair, Department of Applied Engineering and Technology Management, Indiana State University, Terre Haute, Indiana, USA

Outstanding Conference Service Award
• Felix Shulze, PostDoc Researcher, Univ. of Bolzano (Italy)
• Andrea Falegnami, PostDoc Researcher, Adjunct Professor, Sapienza Univ. of Rome

IEOM Outstanding Student Leadership Award
• Silvia Colabianchi, PhD Student, Sapienza Univ. of Rome
Completion Awards

Undergraduate Student Paper Competition Sponsored by SIEMENS

First Place Winner
ID 334 How Industrial Internet of Things Enables Engineers to Work Remotely
Christopher Striff, John Takiff, Brandon Drury, Jimmy Algeo, Moummar Nawafleh
Mohamed Awwad
Department of Industrial and Manufacturing Engineering, California Polytechnic State University, San Luis Obispo, CA 93407, USA

2nd Place Winner
ID 309 Inefficiencies of the COVID-19 Vaccine Distribution in California
Jared McMullen, Matt Akins, Matt Grywczynski, Jack Rocca, Carter Bergquist
Mohamed Awwad
Department of Industrial and Manufacturing Engineering, California Polytechnic State University, San Luis Obispo, CA 93407, USA

3rd Place Winner
ID 557 A Math-Heuristic Approach for Two-Echelon Vendor Managed Inventory Routing Problem
Utku Yavuz, Mehmet Can Aydin, Alp Orhan Ozver, Yarkun Akcil, Asli Erol, Cağla Deniz Ozmen, Buse Küçük büyükür
Industrial Engineering Department, Faculty of Engineering, Özyeğin University, Çekmeköy/Istanbul, 34794, Turkey

4th Place Winner
ID 710 The Effect of ESG Rating on Credit Rating
Farhan Aulia Rahman and Yunieta Anny Nainggolan
School of Business and Management, Bandung Institute of Technology, Bandung, Indonesia

5th Place Winner
ID 2 Reducing Inventory for a Mexican Convenience Store Network by Reducing the Order Cycle Time
Mireya Elizondo, Mariana Villarreal, Vanessa Ocañas and Bernardo Villarreal, Department of Industrial Engineering, Universidad de Monterrey, San Pedro Garza Garcia, N.L. Mexico

Undergraduate Research Competition

First Place Winner
ID 382 Using Aspen Plus to Simulate Pharmaceutical Processes – An Aspirin Case Study
Alisa Douglas, Integrated Biomedical Engineering, McMaster University, Hamilton, ON L8S 4L8, Canada
Ail Elkamel, Department of Chemical Engineering, University of Waterloo, Waterloo, ON, N2L 3G1, Canada

2nd Place Winner
ID 388 Preferences and Opinions of the University of Jeddah Students Towards Electronic Exams
Ziyad Ahmed Alghamdi, Ali Yahya Albaheth, Mohammad Talal Himidah, Sultan Jamal Alqahtani, Murad Bazar Andejany, Department of Industrial and Systems Engineering, College of Engineering, University of Jeddah, UAE

3rd Place Winner
ID 766 Stringency Index and Stock Market Return Amidst COVID-19 Pandemic: Evidence from Emerging Stock Market Countries
Muhammad Ilham Gunawan and Yunieta Anny Nainggolan, A. School of Business and Management, Management Department, Bandung Institute of Technology, Bandung, 40132, Indonesia

4th Place Winner
ID 611 Improving the Purchasing Order Process Of Model Auto And Equipment Supplies Inc. Using An Enterprise Resource Planning (ERP) Software
Jan Erica D.C. Aquino, Karlo Gabbriel D. Batto, Bonifacio A. De Jesus Iv, Aiden Lemuel T. Lumibao, Lex Marco Paolo A. Miranda, Mikka Rosella C. Villarica and Grace Lorraine D. Intal
School of Information Technology, Mapua University, Philippines

5th Place Winner
ID 556 Sustainable Echo Absorption Material with Recycled Plastic
Komalpreet Kaur Takhar, Undergraduate student, Department of Civil Engineering, British Applied College, Umm Al Quwain, UAE
Dr. Saleema Panda, Assistant Professor, Department of Civil Engineering, British Applied College, Umm Al Quwain, UAE

Sr. Design Project Competition Sponsored by Tooling Tech Group
First Place Winner
ID 559 Techno-Economic Analysis of Electrochemical Recovery of Metals from Waste Printed Circuit Boards (PCBs)
Matthew Lam, Aidan O’Gorman, Ryan Schleehahn, and Ali Elkamel, University of Waterloo
Waterloo, ON N2L 3G1, Canada

2nd Place Winner
ID 448 Material Feeder Systems for Manufacturing Operations
Paul Ilovan and Tim Powell, Department of Electrical and Computer Engineering, Lawrence Technological University, Southfield, MI 48075, USA
George Pappas, Department of Electrical and Computer Engineering, Lawrence Technological University, Southfield, MI 48075, USA

3rd Place Winner
ID 531 No-Hands Health Helper
Laura Silverman, Rachel Kristian, Angeliki Dimopulos, and Katie Oyster, Department of Electrical & Computer Engineering Lawrence Technological University. Southfield, MI 48075, USA
George Pappas, Department of Electrical, Computer Engineering and Embedded Software Engineering, Lawrence Technological University Southfield, MI, USA

High School STEM Competition

First Place Winner
ID 345 Ergonomic Design of Computer Workstation for College Students Studying at Home
Randolf Cabugawan, Homer Laguador, and Kelly Albert Lim, Young Innovators Research Center, Mapúa University., Philippines
Ma. Janice J. Gumasing, School of Industrial and Engineering Management, Mapúa University, Manila, Philippines

2nd Place Winner
ID 326 Sequential Pattern Mining of Electronic Health Record for Early Diagnosis of Amyotrophic Lateral Sclerosis
Cindy Liang, Texas Academy of Mathematics and Science, Denton, TX, USA
Lily Sun, Stanford Online High School, Redwood City, CA 94063, USA
William Jin, Community Middle School Plainsboro, NJ 08536, USA

3rd Place Winner
ID 349 BalletNetTrainer: An Automatic Correctional Feedback Instructor for Ballet via Feature Angle Extraction and Machine Learning Techniques
Jiayao (Emily) Li, ARQuest SSERN International, Irvine, CA, USA
Haridhar Pulivarthy, ARQuest SSERN International, Kirkland, WA, USA

Graduate Student Paper Competition Sponsored by EATON Corporation

First Place Winner
ID 438 Design for Additive Manufacturing of a horizontal axis wind turbine
Simone Cantarelli, Daniela Francia, Alfredo Liverani, Leonardo Frizziello, Department of Industrial Engineering
Alma Mater Studiorum University of Bologna, Bologna, Italy

2nd Place Winner
ID 565 Technology Acceptance and Digital Divide as Correlates of Performance Among Engineering Students and Teachers: Inputs to Educational Technology Acquisition and Adaptation Model
Romaly L. Galingan, Technological Institute of the Philippines; Pamantasang Lungsgodng Marikina, Cubao, Quezon City, Philippines; SSS Village, Marikina City Philippines

3rd Place Winner
ID 408 Porter’s Five Generic Strategies: A Case Study from Indonesia Automotive Industry Against Covid-19
Wirawan Pratama Suwadi, T C Kusuma, Bagas Muhammad Kartiko, Department of Industrial Engineering, Faculty of Engineering Universitas Indonesia, Kampus UI Depok, 16424, Indonesia

4th Place Winner
ID 612 Design of Warehouse Management System using Mobile Application for Shoe Manufacturing Industry
Robimarl B. Torres, Marvis B. Halili, Donilyn D. Salazar, Grace Lorraine D. Intal
School of Information Technology
Mapúa University 658 Muralla St., Intramuros, Manila 1002, Philippines

Master Thesis Competition

First Place Winner
ID 292 Analysis and Improvement of Product Management Processes – a Case Study
Francisco Leite (1) and José Faria (1, 2) and Américo Azevedo (1, 2)
(1) Faculty of Engineering, University of Porto, Portugal
(2) INESC TEC, Rua Dr. Roberto Frias, Campus da FEUP, Porto, Portugal
Ivo Pereira, Polytechnic of Porto, Engineering Institute, Porto, Portugal

2nd Place Winner
ID 458 Inventory Management Sourcing Policy Selection: A Focus on Wastewater Infrastructure
Mohammed Maharoof and Dr. Laoucine Kerbache
Engineering Management & Decision Sciences
College of Science and Engineering
Hamad Bin Khalifa University (HBKU), Education City, Qatar

ID 533 EMV& Biometric for Secure Online Purchases
Youness Ridani
SEDCO Technologies
Ifrane Fes-Meknes Region Morocco

3rd Place Winner
ID 460 Impact of Aircraft Model and Delay Duration on the Air Traffic Flow Management
Abdelhamid Boujarif, Industrial Engineering Laboratory, Paris-Saclay University, CentraleSupélec, 91190, Gif-sur-Yvette, France
Sadeque Hamdan, College of Business and Economics, UAE University, Al Ain, United Arab Emirates
Oualid Jouini, Industrial Engineering Laboratory, Paris-Saclay University, CentraleSupélec, 91190, Gif-sur-Yvette, France

Doctoral Dissertation Competition
First Place Winner
ID 370 Data-driven throughput bottleneck analysis in production systems
Mukund Subramaniyan
Department of Industrial and Materials Science
Chalmers University of Technology
Sweden

2nd Place Winner
ID 562 Optimization of consumable consumption in hypermarkets during the Coronavirus pandemic period
Kamilla Filali, Systems Engineering Laboratory, Sultan Moulay Slimane University, Beni Mellal, Morocco
Zoubida Benmamoun, GS laboratory ENSA, Kenitra, Morocco
Hanas Hashimi, Systems Engineering Laboratory, Sultan Moulay Slimane University, Beni Mellal, Morocco

Human Factors and Ergonomics Competition
First Place Winner
ID 537 Perceived Effect of Factors on Workers’ Task Performance in a Cold Storage Warehouse Facility
Cynthara B. Leonardo and Marvin I. Norofia, School of Industrial Engineering and Service Engineering Management, Mapúa University, Intramuros, 1002 Metro Manila, Philippines

2nd Place Winner
ID 306 Retrofitting agricultural tractors with aftermarket weather cabins: safety issues for manufacturers and users
Gattamelata Davide, Puri Daniele, and Vita Leonardo, Department of technological innovations and safety of plants, products and anthropic settlements, National Institute for Insurance against Accidents at Work (INAIL), Italy
Mario Fargnoli and Mara Lombardi, Department of Chemical Engineering Materials Environment (DICMA), Sapienza - University of Rome, Italy

3rd Place Winner
ID 335 Development and Initial Testing of Lumbar Support for Traffic Police Motorcycle Seat With Built-In Massager System: A Preliminary Study In The View of Ergonomics
Nur Athirah Diyana Mohammad Yusof, Karmegam Karuppiah, Putri Anis Syahira Mohamad Jamil, Irmiza Rasdi, Vivien How, Sivasankar Sambasivam, Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia
Kulanthayan KC Mani, Department of Community Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia

Lean Six Sigma Competition Sponsored by Tooling Tech Group
First Place Winner
ID 366 Develop JMP 16_Based STEAMS and Six Sigma DMAIC Training Curriculum for Data Scientist
Mason Chen, Stanford Online High School, San Jose, CA 95131
Charles Chen, Morrill Learning Center, San Jose, CA 95131

2nd Place Winner
ID 554 The Use of Lean Six Sigma Tools in a South African Multinational Organization
Bhekikhaya Ndumiso and Hannelie Nel
Department of Engineering Management
University of Johannesburg, Johannesburg, South Africa

3rd Place Winner
ID 418 Applications of Lean Manufacturing in a manufacturing company in South Africa
Mpho Karen Masemola, Bhekikhaya Ndumiso and Hannelie Nel
Department of Engineering Management
University of Johannesburg, South Africa

**Simulation Competition**

First Place Winner  
Christian Leon-Cardenas, Patrich Ferretti, Merve Sali, Gian Maria Santi, Francesco Gianese, Nicola Crescentini, Leonardo Frizziaro, Giampiero Donnici and Alfredo Liverani, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Viale Risorgimento, 2 –40136, Bologna, Italy  
Giovanni Trisolino, Paola Zarantonello, Stefano Stallone and Giovanni Luigi Di Gennaro, IRCCS –IOR—Rizzoli Orthopaedic Institute, Pediatric Orthopaedics and Traumatology, 40136 Bologna, Italy

ID 553CAD-Aided Preoperative Simulation in Pediatric Orthopedics: The Case Study of Ollier's Disease  
Leonardo Frizziaro, Alfredo Liverani, Gian Maria Santi, Paola Papaleo, Francesca Napolitano and Curzio Pagliari, Department of Industrial Engineering Alma Mater Studiorum University of Bologna, Bologna, Italy  
Giovanni Trisolino, Giovanni Luigi Di Gennaro, and Paola Zarantonello  
IRCCS –IOR—Rizzoli Orthopaedic Institute  
Pediatric Orthopaedics and Traumatology, Bologna Italy

2nd Place Winner  
ID 673 An Integrated Simulation Model for Water Purification and Distribution  
Francesco Simone  
Department of Mechanical and Aerospace Engineering  
Sapienza University of Rome, Italy

ID 784 Efficient Optimization Model for Buffer Size Problem in Production Line with Rework Path  
Hisham Alkhalefa, Mustufa Haider Abidi and Usama Umer  
Advanced Manufacturing Institute, King Saud University, Riyadh, Saudi Arabia  
Ahmed Elkaseer  
Department of Production Engineering and Mechanical Design, Faculty of Engineering, Port Said University, Port Fuad, Egypt, Institute for Automation and Applied Informatics, Karlsruhe Institute of Technology, Karlsruhe, Germany

**Supply Chain and Logistics Competition**

First Place Winner  
ID 630 Deadlock and Collision Prevention Algorithms for Mobile Robots in Automated Warehouses  
Ecem Eroglu Turhanlar and Banu Yetkin Ekren  
Department of Industrial Engineering  
Yasar University, Izmir, Turkey

2nd Place Winner  
ID 469 The Role Of Regulatory Resilience In Supply Chain Optimization: A Case Study  
Sakoua Said and Hafida BOULOIZ, Systems engineering and decision support laboratory, ENSA, Agadir, Morocco  
Maryam Gallab, MIS -LISTD Laboratory, Department of Computer Science, ENSMR, Rabat, Morocco  
Supply Chain and Logistics Competition

3rd Place Winner  
ID 305 Applications of Augmented Reality to Reduce Risk in Supply Chain Management  
Angela Colabella, Collette Lee, Lane Pledger, Monique Cendejas, Vikrant Mannemela and Mohamed Awwad  
Industrial and Manufacturing Engineering Department  
California Polytechnic State University, San Luis Obispo, CA 93407, USA

**Poster Competition**

First Place Winner  
ID 535 Demand Forecasting with Real Case Analysis for Effective Retail Decision-Making  
Safika Thasin, Caroline Zedan, Muhammad Ishaq, Mentors: Dr. Dua Weraikat, Dr Adolf Acquaye  
Mechanical & Industrial Engineering Department  
Rochester Institute of Technology, Dubai

2nd Place Winner  
ID 653 A Model-Based Assessment of Cyber-Resilience Evaluation for Water Purification Plants with Societal Impact  
Francesco Simone, Department of Mechanical and Aerospace Engineering, Sapienza University of Rome, Italy

3rd Place Winner  
ID 615 Improving the Packaging Unit at AEC  
Abdulaziz Alsalamah, Abdullah Alnooh, Nawaf Alsalman, Abdulaziz Alhammadi and Sobhi Mejjaoui,  
Department of Industrial Engineering, College Engineering  
Alfaisal University, Riyadh, Saudi Arabia